

**THESE INSTRUCTIONS MUST BE FOLLOWED OR WARRANTY IS VOID**

**Actions Required:**

**1. CHECK SPRING TYPE**

The spring type is indicated by the first letter at the end of the numeric part of the model number on the metal nameplate (Figure 2). It is also stamped on the mounting ear of the spring housing on most models. The maximum number of usable turns for each spring, and torque generated, is shown below (Figure 1).

Spring Type	Available Turns	Torque (ft-lbs)
A	23	31
B	18	23
C	14	11
D	30	17
F	30	11
G	25	14
J	17	12
K	13	23
L	17	4.6
M	32	4.7
SA	18	53
B5 (HGR-100)	42	2
B6 (HGR-50)	30	1.9
SCR	26	6.5
GR-75	40	-

Figure 1 - Chart Showing Spring Type and Usable Turn

**2. ATTACH HOSE OR CABLE**

Be sure spring tension is relaxed before starting.

**Hose:** Attach hose assembly to the reel outlet. If you have a 900 series spring reel, the outlet riser can be temporarily unbolted from the hub to aid in attaching the hose.

**Cable:** Feed the cable through the drum and hub with the aid of the pull wire supplied. Then connect the cable to the color coded slip ring wires. On some models, you will need to remove the collector cover to expose the collector rings.

**Caution:** Always use a cable clamp connected to the drum in order to keep pressure off the wire connections.

**3. WIND HOSE OR CABLE TO REEL**

Wind all of the hose or cable onto the reel by rotating the disc in the direction that does not add tension or torque to the spring motor. If you feel torque or resistance during this operation, then stop, you are winding in the wrong direction (Figure 3). **Keep track of the number of turns required to store the length of hose or cable being installed.**



Figure 3 - Reel with Hose Attached Showing Rotation Direction



Figure 2 - Sample Serial Tag Attached to All Reels  
 The Sample above indicates a "J" spring

Now refer to Figure 1 to find the total number of available turns for the reel's spring motor. Subtract the number of turns needed to store all of the hose or cable onto the reel from the total number of available turns.

### 3. CONT.

With the hose or cable end retained on the reel, turn the discs in the unwind direction (opposite direction of rotation used to install the hose). You are adding some tension to the reel with this step; be careful not to let go of the disc edge until you have added the proper number of tension turns, and have secured the reel from unwinding by making sure the locking pawl latch finds a tooth on the ratchet wheel to prevent movement. On your final tensioning turn, you will need to pass the hose or cable through the provided utility roller assembly.

### 3a. REDUCE TENSION

In the previous step, the spring tension has been set to its maximum level. If you find the spring tension is greater than required or desired to retract the hose, you can decrease the tension by removing one or more of the tensioning turns you added. Grab hold of the disc edges and carefully allow the reel to unwind one full revolution. Then re-lock the reel and once again pass the hose or cable through the roller assembly (Figure 4).



Figure 4 - Reel with Hose Attached and Wound. Ready for Tension Adjustment

### 4. ATTACH BALL STOP TO HOSE OR CABLE

Draw the hose or cable through the rollers to the point where the ball stop should be attached. Note: After ball stop is positioned, make sure that when the stop is resting against the rollers, the locking pawl latch is disengaged from the ratchet wheel. Now take the two halves of the ball stop and join them together over the hose or cable. Fasten ball stop with provided fasteners (Figure 5).



Figure 5 - Figure Showing Ball Stop Halves Aligned for Installation

### 5. MAKE FINAL CONNECTIONS

You are now ready to make your hose or cable connection to the inlet swivel joint or junction box on the side of the reel (Figure 6).

**NOTICE: A flexible connector must be used between the inlet pipe and the inlet swivel joint on the reel or the warranty will be void.**

**CAUTION: Hose or cable end must be walked back to the reel on all spring reels when rewinding. If allowed to rewind unattended, personal injury or damage to reel could occur.**

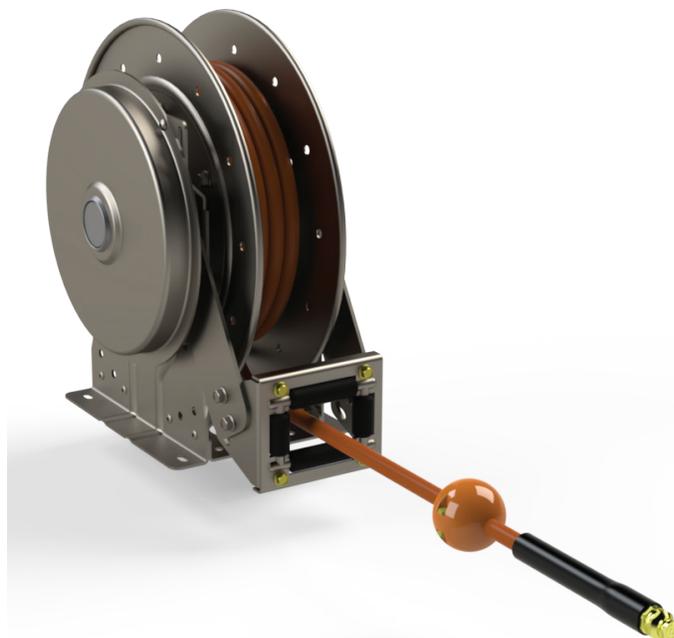


Figure 6 - Reel with Hose & Ball Stop Ready for Inlet Connection